Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
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Boulder Regional Emergency Telephone Service Authority Petitions	)	PS Docket No. 19-254
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	)	

COMMENTS OF VERIZON

The Commission should grant the Boulder Regional Emergency Telephone Service Authority ("BRETSA") petition for declaratory ruling.[1] Last year, the Colorado Public Safety Broadband Governing Body raised legitimate questions about the meaning of interoperability for public safety users in today's competitive mobile wireless marketplace. Those concerns are even more relevant today. As part of its licensing authority over the spectrum used by FirstNet, the Commission will need to assess whether FirstNet has "met [its] duties and obligations set forth under" the Communications Act as a Title III licensee.[2] Those obligations include whether FirstNet's services are genuinely "interoperable" as Congress intended. First responders and other public safety entities need that interoperability now, and it poses real-world implications for public safety during an emergency. The Commission should thus issue a declaratory ruling affirming that "interoperability" under the Spectrum Act means full interoperability (including minimum technical criteria) between different service providers. To further flesh out those obligations and technical criteria, the Commission should also initiate a rulemaking proceeding.

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[1] BRETSA, Petition for Reconsideration, or In the Alternative, Petition for Declaratory Ruling and Petition for Rulemaking, PS Docket Nos. 16-269, 12-94 and 06-229 and WT Docket No. 06-150 (Nov. 21, 2018) ("BRETSA Petition").

[2] *See* 47 U.S.C. § 1421. FirstNet's license term expires in 2022.

I. THE COMMISSION SHOULD CLARIFY THE SPECTRUM ACT REQUIRES FULL INTEROPERABILITY BETWEEN SERVICE PROVIDERS AND THE MINIMUM TECHNICAL CRITERIA FOR INTEROPERABILITY.

The Commission should promptly issue a declaratory ruling clarifying that: (1) the U.S. Department of Homeland Security SAFECOM definition of "interoperability," which includes "full interoperability" between different wireless providers' public safety communications networks, represents what the term means under the Spectrum Act, and (2) full interoperability necessarily includes specific elements, such as support for open standards and consistent priority and preemption levels across networks.

A. Full Interoperability Between Different Service Providers' Public Safety Communications Networks Best Serves Public Safety's Needs and Congress's Objectives.

The DHS SAFECOM program defines interoperability as: "The ability of emergency response agencies to talk to one another via radio communications systems – to exchange voice and/or data with one another on demand, in real time, when needed and when authorized."[3] And as the Commission's Public Safety Interoperability Board ("PSIB") explained, this definition "covers the full spectrum of public safety communications."[4] The Commission itself has reasoned that it "is the true definition of interoperability we seek to achieve (i.e. ensuring that the public safety community, *whoever and wherever they are*, is able to communicate with one

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[3] *See* https://www.dhs.gov/sites/default/files/publications/Wireless_Communications_Interoperability_Awareness_Guide.pdf; Public Safety Interoperability Board, *Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network*, Final Report, § 3.2 (2012) ("*PSIB Report*").

[4] While the PSIB noted that its own definition of "interoperability" focused on "technical interoperability," it still defined the term as "the ability of two or more systems or components from the same or different manufacturers *or service providers*, to successfully exchange data and use information based on underlying interface standards." *Id.* § 3.2 (emphasis supplied).

another)."[5] This was also the prevailing federal government perspective of what interoperability entailed when Congress passed the Spectrum Act. But FirstNet's approach to date limits interoperability only to FirstNet customers communicating on the FirstNet network. Restricting users' ability to use critical features and capabilities on a single network provides public safety users with proprietary "*intra*operability," not true interoperability with other interoperable networks.

This myopic approach will plague public safety users with the same interoperability challenges that Congress wanted to redress in creating FirstNet, with potentially devastating impacts on first responders and individuals in emergency situations. In fact, it could perpetuate the very interoperability problems that first responders faced on 9/11 and in other emergencies by preventing first responders purchasing wireless services from multiple providers, or first responders from different jurisdictions with different providers, from communicating seamlessly with one another.[6] Without true interoperability, first responders responding to the same emergency using different service providers will only be able to communicate within their own user groups and unable to use one another's public safety audio, video, and data services. In other words, first responders will not able to communicate (beyond the ability of any commercial network) with other first responders responding to the same emergency solely because of the purchasing choices of the jurisdiction. And that does not even speak to using the same prioritization and preemption protocols, which is essential for first responders to work effectively

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5 *See In the Matter of Service Rules for the 698-746, 747-762 and 777- 792 MHz Bands Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band Amendment of Part 90 of the Commission's Rules*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 26 FCC Rcd 733, ¶ 16 (2011) (emphasis added).

6 *See The 9/11 Commission Report* at 292-293, 397.

together in an emergency. Even worse, the interoperability capabilities intrinsic to LTE networks due to their universal use of 3GPP technical standards—which already include standards for mission-critical functions—makes such an outcome wholly unnecessary.

FirstNet's restrictive and proprietary approach to interoperability would have all first responders migrate to its network, regardless of whether FirstNet's services are better or more reliable than a competitor's. This suggestion would violate well-established state government rules and policies requiring that government bodies use meaningfully competitive procurements when spending public funds.[7] And individual jurisdictions also have substantive reasons for not entering into exclusive contracts for their public safety wireless services, such as redundancy and network coverage. Jurisdictions also would understandably want to avoid being locked into a particular service provider and technology, particularly as public safety communications services continue to evolve on different spectrum toward, for example, new 5G networks and services. Such a restrictive approach prioritizes FirstNet's business interests above the interests of public safety users, including first responders, and above innovation and competition in the public safety services marketplace. Nothing in the Spectrum Act—which does not require any individual jurisdiction to subscribe to FirstNet, including in those states that "opted in" to the federal FirstNet framework—suggests Congress intended that first responders and state and local government agencies be forced into such a Hobson's choice.

Full interoperability also provides first responders with redundancy and communications continuity in the face of an emergency. Simply put, it enables public safety users to maintain

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[7] *See, e.g.*, Cal. Pub. Cont. Code § 10302 (State of California); Fla. Stat. § 287.057 (State of Florida).

communications in the event of damage to, or destruction of, the primary communications provider's infrastructure. Unless the wireless architecture that FirstNet uses is uniformly independent of its commercial partner(s) in terms of cell sites, backhaul and core network facilities (which it is not), FirstNet *will* suffer some network outages that cannot simply be re-routed via its commercial partner. (And the same is true the other direction, i.e. the customers of a FirstNet competitor would benefit from the short-term availability of the same reciprocal communications and priority/preemption capabilities via FirstNet.) Under FirstNet's restrictive approach, however, the affected FirstNet subscribers would have no other option except to try to obtain standard commercial wireless service on a competing network via commercial roaming. First responders thus face the loss of priority and preemption capabilities, the same situation that the 9/11 Commission and Congress wanted to avoid—public safety users unable to communicate with one another due to disparate services and networks.

B. The Commission Should Clarify Minimum Elements of Full Interoperability to Ensure Public Safety Users Recognize the Benefits.

To ensure that full interoperability can meaningfully benefit public safety users in the near term, the Commission should clarify that full interoperability incorporates some key minimum elements. Doing so would not require prescriptive Commission regulation, and would not need to be as expansive as BRETSA requests. Good faith negotiations between service providers around these basic elements would enable service providers to work through the technical and operational details of interoperability, just as other complex technical inter-carrier issues are resolved in other contexts such as interconnection, roaming, resale and 911 call processing compatibility.

Scope. For full interoperability to meaningfully benefit first responders, it must cover solutions for seamless continuity of all communications for public safety users at the network-to-

network, service-to-service, and device-to-device layers. This will enable public safety agencies to efficiently leverage their existing investments in information technology and devices. Importantly, this leaves plenty of room for competition between different service providers at the application layer, and through important business functions such as customer care, security, network coverage and network reliability.

Open Standards. Full interoperability requires use of open, non-proprietary standards, and will ensure that FirstNet meaningfully implements the PSIB's objective that "the NPSBN levels of interoperability … mirror the levels of interoperability achieved in commercial service provider networks" and that FirstNet "*fully* embrace the technologies, standards and best practices used by commercial service providers to ensure interoperability on day 1 of network deployment and beyond."[8] But there is no need to reinvent the wheel here. Full interoperability requires reciprocal commitments and capabilities, which Verizon is already building into its services and networks and is prepared to offer through the use of open standards. Open standards already exist via the 3GPP standards for Mission Critical Push-to-Talk ("MCPTT"),[9] which cover voice, text, data and video services. As AT&T explained in 2011, public safety interoperability "[m]ust follow open standards – not proprietary functions, handsets, lower layer enablers" and that the "[a]pplication layer is where to differentiate services."[10] Following such standards will enable the user to take advantage of standardized data formats, user authorization

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8 *See PSIB Report* at § 3.1.

9 3rd Generation Partnership Project (3GPP) Release 15 and subsequent releases cover mission critical services, including MCPTT, MCData and MCVideo.

10 *See* https://transition.fcc.gov/pshs/docs/summits/interoperability-2011/DALY-LTE_Interoperability_Forum.pdf, presented at Public Safety Homeland Security Bureau Emergency Response Interoperability Center (ERIC) Interoperability Forum on Mar. 4, 2011, https://www.fcc.gov/news-events/events/2011/03/interoperability-forum.

and security protections, and provide access to an open and non-proprietary applications ecosystem.

Priority and Preemption Levels and Protocols. Consistent prioritization and preemption levels and protocols must apply across different networks, and to all information critical to first responders. That includes not just voice or text communications, but data and video as well. The benefits of consistent prioritization and preemption across service providers should be apparent. In many cases agencies from neighboring and different jurisdictions will provide mutual aid to one another, and will need to communicate reliably with one another using audio, video and text/data, regardless of their particular service providers or the state and local procurement policies governing their service provider and technology decisions. Standardized priority and preemption will enable both groups of first responders to communicate using the highest available priority in both networks. This will include, importantly, establishing the proper amount of bandwidth to support video, and to support priority and preemption for all of voice, video and data. Without this capability, a FirstNet user's messages are given the same prioritization on Verizon's network as a commercial user (and vice-versa). And if one network is saturated, communication between the two agencies will be like all other commercial traffic and could be preempted unless both agencies are corresponding on a common application.

II. THE COMMISSION HAS AMPLE STATUTORY AUTHORITY TO TAKE THE REQUESTED ACTION.

FirstNet is a Commission spectrum licensee classified as a provider of private mobile radio service offering mobile wireless voice, data and internet access services.[11] The Spectrum Act preserved the full extent of the Commission's Title III authority over non-Federal spectrum

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11 *See* Call Sign WQQE234.

licensees like FirstNet who offer these services, except where such authority is "expressly" given to "an agency other than the Commission" such as NTIA or FirstNet.[12] And Title III gives the Commission broad authority to regulate spectrum licensees authorized to provide mobile service.[13]

Clarifying that FirstNet must provide full interoperability to meet its statutory and licensee obligations falls within the scope of this Title III authority. And such action is consistent with the Commission's authority under the Administrative Procedure Act and the Commission's rules to "issue a declaratory ruling terminating a controversy or removing uncertainty," without the need to complete a full-blown notice-and-comment rulemaking.[14] The Commission has already affirmed an expansive view of its Title III authority in adopting radiofrequency technical rules for FirstNet.[15] While "[s]ome of the Title III obligations that generally apply to Commission licensees have been qualified with respect to FirstNet," such as FirstNet's explicit authority to assess fees on public safety users despite Section 337 of the Act,[16] the Spectrum Act limits FirstNet's authority to the administrative and business-related activities

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12 *See* 47 U.S.C. § 1403 (requiring Commission to "implement and enforce this chapter *as if this chapter is a part of the Communications Act of 1934* (47 U.S.C. § 151 et seq.)…." (emphasis supplied)).

13 *See,* 47 U.S.C. §§ 301 et seq.

14 *See* 5 U.S.C. § 554(e); 47 C.F.R. § 1.2. Should the Commission determine instead that a notice-and-comment rulemaking would be required to reach these conclusions, it should initiate such a proceeding shortly given the upcoming end of FirstNet's license term.

15 *See Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012 Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band Service Rules for the 698-746, 747-762 and 777- 792 MHz Bands*, Second Report and Order, 28 FCC Rcd 15174 ¶¶ 34, 40, 58 (2013).

16 *See Procedures for Commission Review of State Opt Out Requests from the FirstNet Radio Access Network et al*, Report and Order and Notice of Proposed Rulemaking, 31 FCC Rcd 10253, n.121 (2016).

"expressly required to be carried out by" FirstNet as enumerated in the statute.[17] Suggesting that FirstNet enjoys exclusive authority to define the statutory terms governing its own regulatory obligations as a licensee, including whether it has met its license renewal requirements, would be contrary to the Commission's Title III responsibilities that the Spectrum Act expressly preserves.

III. CONCLUSION

For the foregoing reasons, the Commission should promptly grant BRETSA's declaratory ruling request to clarify that FirstNet's interoperability duties include full interoperability. To the extent the Commission determines that rules are needed to meaningfully implement full interoperability, it should complete a rulemaking as far in advance of FirstNet's license renewal period as possible.

Respectfully submitted,

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[17] *See* 47 U.S.C. § 1403(b).